The Camellia Bulletin

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RETICULATA CRIMSON ROBE

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The Northern California Camellia Society, Inc. is a non-profit organization of camellia fanciers interested in the culture, propagation, and development of camellias. Meetings are held on the first Monday in each month from November to May inclusive, at 8 p.m., at the Claremont Junior High School Auditorium, Oakland. Membership is open to all those with a serious interest in the subject. Annual Dues $5.00 except to those residing outside the counties of Alameda, Contra Costa, Marin, Solano and San Mateo, to whom Bulletin subscription available at $3.00 per year. Membership application blanks may be obtained from David B. Grigsby, 2218 Jefferson Street, Berkeley, Calif. Address all matter regarding the Bulletin to the Editor. **Report change of address to the Secretary of your Society.**

A NEW ERA IN CAMELLIAS?

One cannot attend a convention of enthusiastic hobbyists without coming away with some new ideas, and certainly that was the case with the writer following the Annual Meeting of the American Camellia Society in Los Angeles. First among these impressions was the feeling that we are about to open the door on entirely new types of camellia as a result of introduction of the new Reticulatas and other hybrids, as well as the many new and promising species. Next, and possibly of more immediate importance to Pacific Coast enthusiasts, was the suggestion by a very prominent member from Georgia at the concluding banquet that it would be appropriate to elect a Californian as President of the national organization in the near future. Inasmuch as this issue contains several articles having to do with hybrids and hybridization, our comments will be confined to the first-named subject, although the latter suggestion definitely strikes a responsive chord and, if it comes to pass, certainly will be very gratifying to all of us in this rapidly developing camellia community.

The camellia fans in this area take their work pretty seriously and so it was only logical that, following Dr. Walter Lammerts' inspiring talk at the January 9th meeting of the Northern California Camellia Society in Berkeley, the essence of which is reproduced in an accompanying article, it should start something. That it has done so is evidenced herein by the Open Letter from Harold L. Paige, Chairman of the Committee on Plant Experimentation of the N.C.C.S., which proposes a major undertaking in a serious endeavor to reach a certain objective in camellia breeding. Although the time element that this will undoubtedly entail is rather staggering, we know the calibre of the people on this Committee and predict that, whether or not they eventually accomplish the desired end, it is pretty certain important information will come from their efforts.

Most of us have seen some of the more outstanding hybrids resulting from deliberate crosses made with a specific objective in mind. Notable are those created by J. C. Williams and DONATION, the superb hybrid resulting from a cross of **C. japonica** DONCKELARI x **C. saluenensis** by Col. Stephenson Clarke, both of England. With these examples as incentives, many others are now working on similar interspecific hybrids and this past season the writer has seen, for the first time, two beautiful new additions from Australia; one, E. G. WATERHOUSE, named after its celebrated originator; the other, MARGARET WATERHOUSE, honors his son's wife. It is said that the original cross of the two species japonica and saluenensis was made in the hope of developing greater hardiness for the sometimes rigorous climate of Britain. What resulted is certainly an excellent argument in favor of scientific breeding with a definite objective in mind. It is rather remarkable how little work of this nature has been done in the long history of camellia culture. Actually, there is so little in the way of recorded experience today that the would-be camellia breeder is virtually forced to start from scratch.

However, one may look to the future with eager anticipation and confidence that the camellia is about to undergo the scientific, deliberate development which has long been the case with the rose, the rhododendron and so many of our garden favorites. We should like to make a few predictions as to what is coming. The first objective will be greater hardiness, so that the geographical range in which the camellia may be grown outdoors will expand, bringing its beauty to millions who are presently denied this pleasure. Perhaps an even earlier development than this will be the tendency, particularly among those with larger gardens and collections, to gradually replace the formal types with camellias having stamen-bearing flowers. This is quietly taking place now

(Continued on Page 8)

AN OPEN LETTER TO OUR MEMBERS

Early in 1955 the Committee on Plant Experimentation of the Northern California Camellia Society completed a rather laborious statistical study of 100 Camellia japonica varieties judged best suited to the region surrounding San Francisco Bay. During the following months the staging of our annual show and the competitive efforts of our members claimed their undivided interest. The summer passed and as fall witnessed the usual revival of interest in camellias, our Committee began to look about for another worthwhile job.

The field of **C. japonica** has been pretty well worked over, at least from the cultural standpoint. Institutions and some individuals properly equipped for scientific study have explored various aspects of the subject and voluminous reports have been written covering their work, as can be found in ten well-filled volumes of the American Camellia Society Year Book and in "Camellia Research" published in 1950 by the Horticultural Research Committee of the Southern California Camellia Society.

Several projects were suggested for our Committee to undertake but none had seemed to appeal to all our members. Then at the January meeting of our Society Dr. Walter Lammerts, well known authority on hybridizing, talked to us on experimentation in camellia breeding. With blackboard and chalk he made particular reference to the crossing of the species having similar chromosome counts and the possibility of changing them through laboratory techniques. Dr. Lammerts' very interesting talk ended on the note that camellia people are spending too much time competing with each other in trying to produce bigger and better japonica blooms and he challenged us to work on a more rewarding program of scientific breeding of camellias.

The Committee on Plant Experimentation is seriously considering the possibility of undertaking a project in line with Dr. Lammerts' suggestion. First, however, it is necessary to know how many members are interested. Also, is the interest strong enough to sustain a program that will inevitably run into a considerable period of years? What plant material is available to our members for use in this project? What training or experience have our members had in this or related fields of work?

If this project seriously interests you, will you please get in touch with the Chairman (address and telephone number below) and you will receive a copy of a questionnaire to fill out and return to the Committee while the preliminary work is still being organized.

For the benefit of members who were not present at the January meeting, the project outlined by Dr. Lammerts is essentially that set forth in his splendid article in this issue entitled "Exciting New Interspecific Camellia Hybridizing Possibilities."

Although a program such as outlined therein would call for patient and long-continued experimentation, it is not at all beyond the realm of possibility and is a most challenging and worthy objective.

PLEASE LET US HEAR FROM YOU PROMPTLY IF YOU ARE INTERESTED.

Harold L. Paige, Chairman
Committee on Plant Experimentation
1212 Monticello Road, Lafayette, Calif.
Phone: ATlantic 3-3408

EXCITING NEW INTERSPECIFIC CAMELLIA HYBRIDIZING POSSIBILITIES

W. E. Lammerts, Descanso Distributors, Inc., Livermore, California

Biologists are agreed that the factors determining the characteristics of plants and animals are serially located in certain deeply staining* bodies of the cell nucleus, called chromosomes. In flowers, at an early stage in the growth of the anthers, these chromosomes are very elongated thread-like structures having a beaded appearance, and it is believed that the genetic factors are located in these small, bead-like chromatin bodies called chromomeres.

Basic wild camellia species ordinarily have fifteen pairs of these chromosomes and so are called diploids. One member of each pair is contributed by the male parent and the other by the female parent. Camellia **japonica, saluesnensis, cuspidata** and **pitardii** are all diploids. In the formation of the pollen and egg cells this chromosome number reduces by one-half, so that each such gamete (mature sex cell) possesses only fifteen chromosomes, or one from each of the parental pairs. At the fertilization process, however, the pollen and egg nuclei unite, thus restoring the full number of thirty chromosomes or fifteen pairs. In this manner each seed possesses a complete set of the hereditary factors necessary for the normal development of the new plant.

No actual tetraploid (30-pair) species, and even very few such varieties, exist. The only ones reported by E. K. Janaki Ammal[1] are C. **sinensis** var. **macrophylla** (Simura) and C. **saluenensis** var. **macrophylla** (Trewithen). This is strange from the evolutionary viewpoint since so many species are hexaploid, i.e., have six times the basic number or ninety chromosomes (forty-five pairs). Where then are the tetraploid species, a necessary first step in the presumed origin of the hexaploids from the basic diploid species?

The C. **reticulata** varieties are hexaploid as are those of the C. **sasanqua.** This fact poses a bit of a problem in hybridizing since it is more difficult to cross basic (diploid) species with hexaploids than with each other. Accordingly, as reported in the 1954 American Camellia Society Yearbook (Hybridization Experiments with the Kunming Camellia **reticulata** Hybrids—pgs. 1-6) extensive attempts to pollinate C. **japonica** varieties with the Kunming C. **reticulata** varieties have been most disappointing.

Usually crosses involving diploid and either tetraploid or hexaploid species are most successful if the hexaploid is used as female parent. With the increasing availability of these varieties which set seed easily, large scale attempts to obtain seedlings by using pollen of such C. **japonica** varieties as Donckelarii on them should be made. C. **reticulata** varieties known to set seed are "Lion Head," "Crimson Robe," "Shot Silk," "Butterfly Wings," "Changs Temple," and "Cornelian."

Though many fascinating possibilities could be realized should fertile hybrids between C. **reticulata** and C. **japonica** ever be obtained, other even more exciting hybrids are more readily possible. Since the C. **sasanqua** varieties, with few exceptions, are hexaploid, they should cross with the C. **reticulata** varieties much more readily than do either C. **japonica** or C. **saluenensis.** The fall flowering behavior of C. **sasanqua** might thus be combined with the remarkable flower quality and size of the C. **reticulata** varieties. In many ways C. **oleifera** Wisley (actually a C. **sasanqua** variety), would be most ideal as a pollen parent. It is reported by Janaki Ammal as being hexaploid. The flowers are large, up to four inches, very **fragrant** and white generously tipped with pink. The petals are curled and reticulate. Thus, even fragrance might well be combined with the exquisite size and form of some of the C. **reticulata** varieties.

*receptive to aceto-carmine stain as a means of identification.

Finally, and most exciting, C. **rusticana** is reported by Barnsly (2) and Peer (3) as being winter hardy. My own experience shows that it certainly responds to short day length by hardening up and going completely dormant. Unlike C. **japonica,** it responds very slowly to increased warmth and is much more cyclic in its growth pattern. It grows well in the western mountains of Japan and is covered by six to eight feet of snow from the end of December until the early part of April. Says Ralph Peer, "As the snow melts in the springtime, flowers appear on the branches of C. **rusticana** as the level of the snow descends." The leaves of this species closely resemble those of C. **japonica** in gloss and texture. Since it is diploid, cross-pollination with genetically desirable semi-double C. **japonica** varieties might result in reasonably fertile hybrids. Treatment of these with colchicine would be worth trying in hopes of inducing tetraploids. By back crossing to C. **rusticana** using the colchicine-induced tetraploid as female parent, triploid hybrids having two sets of C. **rusticana** and one set of C. **japonica** chromosomes would be obtained which, if successfully treated with colchicine, would give the ideal hexaploid for crossing into the C. **reticulata** x C. **sasanqua** hybrids. In this way the stage would be set for combining the desirable cold resistance factors of the C. **rusticana** with the most desirable flower qualities of C. **reticulata,** the fall flowering qualities of C. **sasanqua** and fragrance of C. **oleifera.**

All steps of the program suggested herein have been accomplished in other plants and so the foregoing is not imaginative dreaming. Hoffman(4) reports various techniques for applying colchicine to camellia seeds and seedlings. Though actual tetraploids are not reported by him, at least his data on treatment and survival are helpful. Since tetraploids have been successfully produced by colchicine treatment in both the peach and cranberry, it should also be possible to obtain them in the camellia.

The results, then, so far obtained by hybridization of C. **reticulata** indicate that though much more difficult than expected, crosses resulting in true hybrids are possible. By taking advantage of the well established principle that, when species of a polyploid series are crossed, the most successful ones are those in which the female parent has the larger chromosome number, we may confidently expect a much greater degree of success. Since the distinctive features of the hexaploid species may be, in part, due to geographic isolation from one another, there is a good chance that they may be genetically rather closely related and therefore more readily intercrossed with each other than with C. **japonica.** Along this line of thought it is of interest to report that several hundred attempts to cross C. **japonica** with C. **sasanqua** varieties have been completely unsuccessful, both when used as female and pollen parent. In all cases C. **japonica** and C. **sasanqua** varieties which had an excellent record for seed set were used as female parents, and yet not a single seed capsule was obtained. C. **sasanqua** evidently then differs genetically even more from C. **japonica** than does C. **reticulata** and so, from this point of view, might be expected to be more cross-fertile with C. **reticulata** than either one has been found to be with C. **japonica.** Of course, the possibility always exists that the genetic divergence may be in the opposite direction, but certainly careful cross-pollination studies would seem to be abundantly worth trying.

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(2) Barnsly, W. H.: "Some Notes on Camellia Breeding," American Camellia Yearbook, pages 114-119, 1952.

(3) Peer, Ralph: "New Camellias During the Next Ten Years," American Camellia Yearbook, pages 1-2, 1955.

(4) Hoffman, R. M.: "The Use of Colchicine in Camellia Breeding," American Camellia Yearbook, pages 122-126, 1952.

CAMELLIA HYBRIDS

Walter G. Hazlewood, Epping, New South Wales, Australia

Great as are the improvements in the quality of the new **Camellia japonica** cultivars, I feel that we must look to hybrids, more and more for the camellia of the future. People tend to get tired of but the one type after a while, no matter how good they may be. In proof of this, we have only to go back to the last century, when camellias were just as popular as they are now. At that time, it was the formal double which held sway, but the public became surfeited with their very perfection and lack of variation. The result was that camellias lost their popularity for nearly 50 years. Then a new generation of gardeners, who had not been brought up on camellias, discovered them again, particularly the singles and semi-doubles and all the other variations. Even now people say to me "I did not care for the old style camellia but I like the new ones," and often they are really referring to some of the oldest of all, such as **Elegans,** which dates back to 1825 when it was featured in Chandler & Buckingham's **Camellia Britannica.** Of course, they had been brought up on the formal types and did not know any others. I feel that such a thing could happen again unless we produce something different and this can only be accomplished by the introduction of new species. England started the ball rolling with the saluenensis X japonica hybrids, some of which are good, others very medium, but the main thing is their different foliage and their long flowering period. Since then, other crosses have been made with **C. saluenensis** X **C. reticulata** Wild Form and **C. reticulata Captain Rawes.** Another break is **C. saluenensis** with **C. cuspidata,** which has given us **"Cornish Snow."** This is a very attractive garden shrub with lovely foliage and with a long flowering period, but the flowers are very fleeting and are not good for cutting. A further cross with **C. japonica** will probably produce the long flowering period, together with good keeping qualities. Professor E. G. Waterhouse has raised a number of saluenensis X japonica seedlings which are showing great promise, and Dr. B. W. Doak of New Zealand has two seedlings of saluenensis X reticulata **Captain Rawes.** One of these was featured in the last Rhododendron & Camellia Year Book of the Royal Horticultural Society of England. This camellia was five inches in diameter and had fifteen petals of a deep rose pink colour.

Personally, I lean toward the sasanqua as one of the parents and something in this direction seems to be forthcoming. It has been stated that sasanqua and japonica would not cross, owing to the great difference in their chromosome count: sasanqua 90, japonica 30. In the September **Camellian** there is a report of one such hybrid being raised by Mr. Moultrie Ball, Summerville, South Carolina. Mr. David L. Feathers reports indications he may have one also and I understand that there are others in the offing. My own efforts have produced several but so far I have not flowered anything that suggests there has been a successful cross. The one plant that looks like it has the foliage of both parents but has not yet flowered. I am living in hope of seeing it bloom this coming autumn. The possibilities of such a cross are boundless. With its sasanqua parentage it should bloom much earlier, be much quicker and stronger in growth, stand more heat and thrive in soils too alkaline for **C. japonica.** From the japonica parent we can look for larger flowers that will be good for picking. Should we get japonica-type flowers on any of these crosses, we can look for camellias for eight months of the year at least. I have tried crossing camellia with **Gordonia axilaris** (anomala), one of the relatives of the camellia, but so far without success. Another relative is **Schima Noronhae,** from Hong Kong. This is described as a tree with white flowers and a red pistil, but the main point, if it could be crossed into the camellia, is its perfume which is said to be

very strong, so much so that it attracts all the insects in its vicinity. Mr. Dean, of the Urban Services of Hong Kong, describes it as the loveliest tree in the Island. Although I have plants of it, so far it has not flowered but it is worth growing for its foliage.

Camellia hongkongensis is another species which has not yet received any attention. This species is rather tender and would be limited as to where it could be grown, but it has a lovely and distinctive foliage with a red flower like japonica. Even if it does not give us anything different in flower it should provide a break in the matter of foliage.

C. salicifolia is also a species that I have received from Hong Kong, but it has not flowered with me. Its foliage is after the style of cuspidata but more dense and the habit of growth is pendulous. The young tips are a beautiful reddish colour and there may be some possibilities in this newcomer.

A NEW ERA IN CAMELLIAS? (Continued from Page 3)

because of the petal blight situation and consequent necessity of simplifying the garden litter problem. A flower which falls intact can be picked up in a fraction of the time required to remove one which shatters. Thus the diametric opposite of what was popular in camellias in the 19th century, when nothing but absolute formals was considered worthwhile, is apt to be the case in the latter half of this century. Another development that seems likely is a trend away from gigantic size without particular regard to form and color tone, toward flowers that have greater delicacy and grace. Not that one will ever replace the other, but size is not so likely to continue indefinitely as a predominant specification. This would open the way to the axillary bloomers having smaller flowers, that will give new and pleasing mass effects, out of which many novel and interesting forms and uses will arise, such as flower sprays and pendant types bred for hanging-basket usage. So, it seems inevitable that, in this ever-changing world, the camellia is bound to follow the trend, although the ALBA PLENAS and MAGNOLIAEFLORAS undoubtedly will carry on in the future as they have in the past.—The Editor.

RALPH S. PEER HONORED

It is a matter of considerable gratification to camellia enthusiasts in this country that an American has just received the distinction of an outstanding award by the Royal Horticultural Society. On February 28th last, Mr. Ralph S. Peer of Los Angeles, whom we are proud to number among our members, was presented the Veitch Memorial Gold Medal, at a distinguished assemblage in London, in recognition of his outstanding services to the camellia.

This is an honor that is a once-in-a-lifetime proposition, and his legion of friends in the camellia world rejoice that Mr. Peer's years of untiring effort on behalf, particularly, of the introduction of new species and varieties, and his very generous distribution of rare plant material among those calculated to make the best use thereof, have finally been suitably recognized.

Perhaps the most remarkable feature of this incident lies in the fact that, because of his world-wide business activities, the recipient of this award is of necessity neither a professional nor a specialist, but only a hobbyist in the camellia field. It is a never-ceasing source of wonderment to his friends how this head of a large and complicated international business manages to keep so well informed and accomplish so much with the limited time at his disposal, and how he contrives to keep such a keen interest in something he has so little time to enjoy. Here is certainly an inspirational example for all of us!

THE 1956 CAMELLIA SHOWS IN NORTHERN CALIFORNIA

The change in policy of **The Bulletin**, with its relatively large number of distant members and subscribers, makes it necessary that we devote our space primarily to matters of general interest, which precludes the rather detailed accounting of Show results which has been the practice heretofore. However, we should at least like to list what might be called the bare essentials of the results of competition at the Northern California Camellia Society Show at Oakland March 3-4, which is the only one of the three shows in this area that has supplied us with detailed information in this regard.

Following is a list of the ten highest winners of points in the Sweepstakes competition, showing in consecutive order the total number of blue, red and white ribbons received, followed by their aggregate point total:

C. W. Lattin, Oakland (Winner)	126—60—48 :	Total	546 points
B. W. S. Hollingshead, Orinda (Runner-up)	43—28—12 :	"	197 "
Dr. F. E. Heitman, Lafayette	36— 6— 4 :	"	124 "
O. L. Davis, Lafayette	25—18— 8 :	"	119 "
L. P. Brooks, Concord	15—10— 6 :	"	71 "
C. A. Andrews, San Mateo	6—16—14 :	"	64 "
J. K. Kirby, Concord	11—11— 4 :	"	59 "
Mrs. G. M. Grismore, Oakland	8— 7— 7 :	"	45 "
B. M. Haugen, Millbrae	11— 5— 1 :	"	44 "
Jack Osegueda, Oakland	2—12—12 :	"	42 "

The trophy winners were as follows:

C. W. Lattin
- N.C.C.S. Sweepstakes Trophy
- Best 7 Japonicas One Variety (ANITA)—Lattin Trophy

Dr. F. E. Heitman
- Best Japonica Bloom (FLOWERWOOD) — Paige Trophy
- Best 3 Japonica Blooms (MME. HAHN) — Hollingshead Trophy
- Best 12 Different Japonicas — Certificate of Award
- Best 12 Japonicas One Variety (MME. HAHN) — Grismore Memorial Trophy

O. L. Davis
- Most Outstanding Potted Plant (ANITA) — Sylvia Wells Trophy

J. Vallerga
- Best Reticulata Bloom (CRIMSON ROBE) — Mary-Elizabeth Purcell Brown Memorial Trophy

D. L. Feathers
- Best New Seedling (SWIRLING CLOUD) — Feathers Trophy

In addition, it is fitting that we here acknowledge the outstanding contributions made by the following, to whom Special Award ribbons were given in recognition thereof:

Mrs. Lenore Broze (for tray of 7 CAPT. RAWES Reticulatas)
R. C. Brown, Sacramento (for courtesy Collection Exhibit)
Skipper Kent (for courtesy Collection Exhibit)
David L. Feathers (for courtesy Collection Exhibit)
Dr. Robert K. Cutter (for Potted and Hanging-Basket Plants)
Harold L. Paige (for Collection of Container-Grown Plants)
Hogan & Evers, Oakland (for Floral Theme, with Heavy Driftwood)
U. C. Floral Shop (for artistic Floral Arrangement)
Art & Flower Studio, Oakland (for distinctive floral exhibit)
Toichi Domoto, Hayward (For Exhibit of Reticulatas and Potted Plants)
Vernon James, Campbell (for Exhibit of New and Rare Camellias)

THE SACRAMENTO AND SAN JOSE SHOWS

Unfortunately, the necessity of re-arranging show dates here in Northern California, so as to permit of interested members attending the American Camellia Society convention and joint Camellia Show in Los Angeles late in February, resulted in what we all try to avoid—a duplication of show dates. Thus it happened this year that the Oakland and San Jose shows fell on the same Sunday—March 4th—and some of us who wished to attend both were disappointed. Due to show commitments and the presence of visitors from the South, who came up from Los Angeles to look us over, several N.C.C.S. people were unable to get away for the trip to San Jose, which is always very much worthwhile and an opportunity to get together again with old friends. We therefore are unable to give other than hearsay reports on the annual Big Event of the Camellia Society of Santa Clara County this year, but from all accounts it was quite up to par from every standpoint—beauty, blooms and attendance—and we know that missing it was our loss. Let us all plan to avoid any duplication between San Jose, Oakland and Sacramento show dates in the future.

On the following week-end, March 10-11, the Camellia Society of Sacramento held its 32nd Annual Camellia Show, under absolutely ideal weather conditions, and had its customary heavy attendance and abundance of blooms of good quality. Staged in its splendid quarters, this show is always one of the highlights of the season and the meeting place for a host of camellia notables. The judges were hard put to get their task finished before the doors were due to open, even with half a dozen teams working, and the entries were heavy in almost all classes except the reticulatas. The Sacramento Show always leaves little to be desired, but one did miss the potted plants, which were always so much a part of the color and such a pleasantly diverting background in the past. We think we voice the feelings of many who believe that no show is complete without "complete" camellias, plant and all!

Any report on the shows this year would be incomplete and we, as reporters would be remiss, were particular mention not made of the tremendous job done by our former president, Clifton W. Lattin of Oakland, in winning Sweepstakes Award at three of the major shows in California this year: Los Angeles, Oakland and Sacramento. In fact, Clif cleaned up in every show in which he entered and by no small margin, apparently. To our knowledge, this has only been done once before—also by a Northern Californian man-and-wife team, the W. L. Stoeckles, of Concord. Aside from the personal angle, we feel this is pretty good evidence of the quality of blooms grown in this part of the country. We heard, incidentally, that another "foreigner" from these parts, Dr. Fred Heitman of Lafayette, won nine blue ribbons out of 13 flowers entered in the Los Angeles show, besides some "Best" trophies. You fellows had better stay home hereafter, or some of those top-notchers from the Southern part of the state will be paying us off in kind!

NOTES ON THE BACK OF MY A.C.S. CONVENTION PROGRAM

Following his acceptance speech, new President S. L. Marbury concluded with a list of his "top 10 Camellias from the South." Les Marbury must be a generous person by nature, for your Editor took down the following names (listed alphabetically) which add up to 15 varieties: BETTY SHEFFIELD, CHARLOTTE BRADFORD, ELIZABETH LE BEY, EMMETT BARNES, GERTRUDE MURRAY, LAURA WALKER, MARY ANN HAUSER, MATHOTIANA SUPREME, MIRIAM STEVENSON, MRS. D. W. DAVIS, PINK CHAMPAGNE, R. L. WHEELER, SIMEON, STELLA SEWELL and TOMORROW. Actually, we believe Les simply could not restrict his choice to 10 and if what we hear of some of these is correct, 15 may be too few!

1956 ANNUAL MEETING IN SOUTHERN CALIFORNIA

Roy T. Thompson, Glendale

Camellia history was made in Southern California in the six days centering on the Annual Meeting of the American Camellia Society, Feb. 21 to 26, inclusive. The period was crowded with camellia and social activities of all kinds, and distinguished by the concentration of camellia notables from many states. There were 195 officially registered participants in the week's program, for which a fee was charged, as well as many members of local societies who participated in various events. One of the most pleasant and fruitful features of this memorable camellia gathering was the presence of 80 out-of-state visitors, mostly from the South.

The week's activities were planned and worked out by four combined camellia societies organized for the purpose into the Los Angeles Camellia Council. They were the Los Angeles Camellia Society, the Pacific Camellia Society, the Southern California Camellia Society, and the Temple City Camellia Society. Mr. Ralph Peer first broached the plan two years ago and was instrumental in arranging for the scheduling of the 1956 A.C.S. Annual Meeting in Los Angeles. Early last summer the Council decided to stage a combined outdoor show for the meeting. Mr. Peer served as head of the Council and Mr. Alton B. Parker as Show Chairman. By starting to plan early, the Council was able to schedule the four societies' combined show, the Temple City Camellia Festival, the Descanso Camellia Festival, and the A.C.S. Annual Meeting together in one long week-end.

The week began with the arrival of a large contingent of Southerners on the Sunset Limited in the late afternoon of Feb. 21. A local delegation met them with cars and transported them to the Roosevelt Hotel in Hollywood, official headquarters for the week.

The next day, Wednesday, was given over to a visit to "Disneyland" as guests of the Richfield Oil Company. Three huge buses took the party, which included not only the visitors but many dignitaries of the four local societies, to this new and spectacular fairyland. En route, a stop was made at the home of Mr. and Mrs. R. W. Ragland at Orange where the party inspected a fine collection of standard and new varieties, all in bloom. An outstanding feature was the large plant of **Reg Ragland** (red) with several limit-sized blooms and another plant of the variegated sport. A large plant of **Donation** with half a dozen feathery pendulous blooms proved to be another center of interest.

At Disneyland the party circled the exhibits on a vintage 1856 Santa Fe railroad and, for once, almost forgot about camellias. This was followed by a most sumptuous lunch at the Red Wagon Inn, an hour at the Golden Horseshoe Musical Review (where all took part in singing ballads and enjoyed the 1896 vaudeville hits including "Slue Foot Sue" and Wally Boag, the gun-toting humorist). Next attraction was the Richfield Show, a pictorialization of the history —geological and commercial—of oil, done by Disney technicians in a series of animated cartoon-like scenes. The afternoon was concluded with a visit to the American Motors Motorama Show, a complete circle of eight motion picture screens running simultaneously, with the spectator in the center.

The official meeting of the Board of Directors of the A.C.S. was held Thursday and the Annual Meeting, which was open to the public, that evening at the Hollywood Women's Club. The main address was given by Dr. A. G. Plakidas, Louisiana State University, on "Transmission of Leaf and Flower Variegation in Camellias by Grafting." Dr. Plakidas said that variegation transmitted by grafting is a virus infection, that some varieties like **Te Deum** are not affected in the flowers and others like **Lallarook** only in the flowers. Others

(the masked carriers) do not show the virus in either flowers or leaves but transmit it, when grafted, to other plants. The practice of grafting has become so widespread, Dr. Plakidas said, that the time may come when solid-color camellias will be rare, and propagation by cuttings the only way to avoid such a situation. Variegation through virus infection should be distinguished, he said, from genetic variegation, as found, for example, in **Herme.** This talk was followed by refreshments, then a panel consisting of Dr. Plakidas, Mr. Harvey Short, Mr. Julius Nuccio, Mrs. Jessie Katz, Judge Arthur Solomon, Mr. S. L. Marbury, Mr. David Feathers, and Mr. Howard Asper answered a number of general questions on camellias. In answer to one query, Dr. Plakidas said that virus-infected scions resulted in fewer "takes" than would be the case from normal scions.

Friday's program included a bus trip for the visitors to the Huntington Gardens and a cocktail party at the Hollywood Roosevelt Hotel. This was held in the beautiful Redwood Room and was one of the highlights of the week's activities. Unlike many such parties, accommodations were provided for guests to sit down and relax a bit, a provision much appreciated by many. This party was presided over by Mrs. Dohrmann of San Marino.

Buses took the visitors Saturday morning to the Temple City Camellia Festival and Parade, a Western Barbecue at lunch time, and at 2:30 to the Camellia Show at Descanso Gardens.

The show was, for most people, the central event of the week. It was staged outdoors in an open area surrounded by live-oaks and was, indeed, a gala event high in color and activity, like a country fair. Since it was the combined show of four societies, provision was made for many blooms and it was, in every respect except the number and quality of the blooms (weather conditions deferred the high tide of flowers until three weeks later) the most distinguished camellia show ever put on in Southern California.

Tables in pairs circled the outer edge of the area and these were protected from the weather by awnings. Other tables were situated about the central area, but there was still plenty of room and no crowding. The tables themselves were covered with a layer of damp peat in which small circular depressions had been made for the flowers. This, together with the cool outdoor air, kept the flowers in good condition throughout the show.

Since this was the first outdoor camellia show in Southern California history, it had to be pioneered the hard way: there were no precedents. For example, the awnings over the tables proved to be inadvisable because they kept light from the tables and made it difficult for the judges and the public properly to view the flowers. Translucent material instead of canvas would have been better. The damp peat was excellent for coolness and dampness but its dark color made a poor background for flowers. A lighter color would have been an improvement. There was some criticism, too, from the paying guests, over the long distances which had to be walked over cold, damp ground.

But, everything considered, it was a highly successful flower pageant and show and will be long remembered by camellia people and the public. Paid admission (which went to Los Angeles County, the chief financial backer of the show) added up to about double the number of admissions last year (many of them were free) at the four separate shows. Everybody consulted in the matter agreed that the one most notable feature of this show was the beautiful outdoor setting.

The banquet Saturday evening in the Blossom Room of the Roosevelt Hotel was an affair marked by gaiety and relaxation. There were no set speeches. Mr. Ralph Peer as emcee introduced Mr. Marbury, President-elect of the A.C.S.

(Continued on Page 19)

AN EXPENSIVE EDUCATION

Richard C. Brown, Sacramento

My introduction to camellias came about twenty years ago when a friend of mine invited me to visit his new home. I inquired as to what kind of shrubs he had that produced such beautiful flowers. He, of course, proudly showed me each of the large, beautiful camellias that were then a great mass of color. I was immediately enrolled in the kindergarten of camelliana.

My next step up the ladder was the purchase of two camellia plants—a red and a white. Next, I had to have more, and a limited budget and my friend with a garden of large camellias provided the cuttings necessary for the "new" varieties. I was now in the first grade.

Probably all of you have had much the same curriculum as I in my education in Camelliana and so, for brevity's sake, let's "promote" ourselves into at least high school and get into the subject that has been so grossly overlooked in the grafting classroom. I refer to "after grafting care."

It is sincerely hoped that your teachers were more thorough than mine and that the subject of grafting was covered completely for you. For me it was one of worry, frustration and a mid-term mark of "F", so I am sure that some remarks on my experiences will not be amiss even if you did not have such disastrous results as I.

Practically all of the articles and instructions on the subject of grafting tell us how to make the graft and nothing more. The operation is completed, the jar or cloche is in place, and I presume our teachers infer that if the cambiums are matched we may walk away, as the poor stump of stock after amputation is "on its own" and we have nothing to worry about. It is also inferred that it will not be long before that unsatisfactory camellia will be a beautiful big "Pink Clouds" or "R. L. Wheeler" — so just forget all about it. Oh yeah? The real job in the grafting process has just started. To begin, let me say that my grafting is all done in a small greenhouse where there is opportunity of controlling the heat and which permits starting grafting much earlier in the winter than if it were done in the open.

Before the "operation" or amputation is performed, I like to "condition" the root stock by giving the stock heavy watering and putting the container-planted stock in the greenhouse. This soon takes the plant out of dormancy and starts the sap flowing which, in turn, induces a callus sooner than on a dormant root stock. This conditioning also enables the grafter to have the roots at the proper degree of moisture — not too dry, not too wet.

Before I started this conditioning, the roots being too wet from winter rains caused much fungus mold — white, gray, brown, and black — but the teacher hadn't told me what to do and so I went to the "experts" — and this is what they advised: The first expert said, "Get some white vinegar (it had to be white, any other vinegar wouldn't do) and dilute it about 50-50 with water. Then get a camel's hair water color brush (it had to be camel's hair) and paint the stock and scion with the solution—I did and the graft died. Next came the gray mold—another expert told me to make a paste of Bordeaux mixture and water—a little thinner than the consistency of mayonnaise and paint it on the stock with the camel's hair brush—I did—and the graft died. Then the grafts contracted brown and black mold—another expert said to dust the graft with Bordeaux fungicide. I did, and still the same result—a dead graft.

What to do about the various-colored molds? It appears to me that mold is caused by too much moisture and too much heat which in turn becomes too much humidity. What do we do to reduce humidity? We get cool dry air, and so when I find a mold on my grafts, I put the graft out in the fresh air,

with the jar or cloche removed for a half-hour or an hour. I wipe off the mold with my fingers or a rag to hurry the drying of the stock and scion — it may have to be repeated a few times — but if we keep a vigil of every twelve hours on new grafts for a week or so — we are sure to catch the mold before it has a chance to cause fatality to the prize graft we have made so carefully.

One way to insure against the various molds is to put a tin "collar" around the stock and scion and fill it with dry peat or sand. The "collar" can be made by cutting out the top and the bottom of a small tin can and slipping it over the graft. The dry peat has worked so well in such a collar for me that I have not tried other material — but some say sand, vermiculite and lava rock do very well, too. The peat seems to absorb excess moisture from the stock and yet hold enough moisture around the scion and stock and also excludes air, thus inducing callusing even sooner than ordinarily may be expected.

It is very necessary that the roots of the stock be kept moist so do not let the plant dry out completely. Give the graft a light watering about every 10 to 14 days, and this will keep it alive and the callusing active.

It is always a temptation to "play" with grafts — especially when the jar is fogged with moisture and we can't see how the graft is doing — so when you lift the jar and make your inspection, be careful not to strike the scion. It doesn't take much to break it off.

Let's suppose we have a fine callus formed. At this point I like to take off the rubber band so that the incision in the stock will heal nice and smooth. However, do not now remove the jar permanently — put it back on after removing the rubber band. The reason for so doing is that the callus is soft, whereas fast drying will often cause the cleft in the stock to separate and leave your scion attached to only one side of the stock. When the callus has completely encircled the top of the stock and up the two sides of the cleft, then a few small blocks placed under the jar will let in air in sufficient quantity so as to harden the callus and start top growth. A few days after blocking up the jar, and if growth has not yet begun, it can be removed completely with little or no hazard as there will be no wilting of new growth.

Suppose the new growth has reached the top of the jar and is now growing sideways—but the callus is not sufficiently established to remove the jar. You can raise the jar to make more "headroom" by taking a one-pound coffee can with the top and bottom cut out and putting it over the graft (as I mentioned with the "collar" idea). The one-gallon jar fits into the coffee can perfectly, and your top growth can now straighten up. I have built grafts up six cans high—it works fine.

Often we harden off the graft before the callus has completely encircled the top of the root stock. In such case, I suggest you watch it, for if the entire surface of the stock has not healed over in two years, it never will — so it is then necessary to perform a bit of surgery. The uncallused portion must be cut back to green live wood and painted with sealing compound because if it is not completely healed, the root stock may slowly die back completely.

Generally when we have reached this point in the after-care of the graft not much more can happen to it except dogs, cats, and children. So put your growing grafts in an out-of-the-way place like the L of a building where your work will not be subject to such unnecessary hazards.

One finds gaining an education discouraging at times but the satisfaction in mastering anything new is great and well worth while. I hope that you may have found an answer or two in this presentation and that your education will therefore not be as expensive as was mine. Good grafting and good luck!

(The essence of an address given at the December 5, 1955, meeting of the Northern California Camellia Society—The Editor.)

CAMELLIA RESEARCH

(Reprinted by permission from Issue No. 30 of RESEARCH, the official publication of the California Institute of Technology)

The camellia is one of the most beautiful and most appreciated ornamental plants. Since it is a native of warm temperate regions (southern China), it cannot be grown in all parts of our country, but it does thrive throughout a wide arc, extending from Washington, D.C., south through Georgia and Florida, west along the Gulf Coast and north along the Pacific Coast as far as Seattle.

The large size and sturdiness and freedom from pests of the camellia shrub have combined to make it a favorite of gardeners throughout this region. The enthusiasm of camellia fanciers for the flower of their choice has led them to form societies dedicated to the advancement of camellia lore, in the same way that biologists and chemists band together for the advancement of their disciplines.

And as it turns out, there is real need for study of the camellia as a plant, since, despite a popularity dating back over a hundred years, there has been but little serious investigation of the factors and conditions which control its growth and flower production. It is only natural, therefore, that when a camellia lover and member of the Southern California Camellia Society happens also to be a member of the biology staff at Caltech, as in the case of **Professor James F. Bonner,** some study of camellia problems should ensue.

Camellia matters have been investigated at the Institute as a sort of scientific hobby for the past ten years. Camellias have been grown in the phytotron (the Earhart Plant Research Laboratory) to find out what temperatures they like: they have been grown in nutrient solutions to find out what they need by way of minerals; their flowers have been studied under the microscope to find out about their chromosomes so that they may be hybridized more intelligently. Here are some of the lessons we have learned from this work:

When we grow a plant, we first want it to grow vegetatively—that is, to produce roots, stems and leaves and to grow to a good thrifty size; we want it to change its mind, to produce buds which will grow into flowers rather than into more stem and leaves; and we want it to become reproductive.

The vegetative growth of the camellia, as of any plant, depends upon the carbon dioxide of the air, which is taken up by the plant and reduced to plant material by the process of photosynthesis. Camellia growth depends, too, upon the water which is taken up from the soil, and upon the absorption of a small number of mineral elements which, although they make up only a small part of the plant ,are nevertheless essential to its welfare.

The study of the uptake of minerals by plant roots and the effect of variations in mineral uptake on plant growth is perhaps the most active aspect of plant science. The mineral nutrition of the camellia is something that we know a lot about. The general method of studying the mineral nutrition of the camellia, as of any plant, consists of growing the plant in some inert substratum; for example, sand or gravel, which supplies only mechanical support. The plant is then watered with a nutrient solution. Such nutrient solutions may be made up to supply varying concentrations of each mineral.

By growing many plants with many different nutrient solutions, we can determine how well our plant grows in the presence or absence of each, and can determine what constitutes an optimum nutrient mixture for the camellia.

Mineral Nutrients

We have done experiments of this kind, in which we have systematically varied the levels and ratios of all the principal mineral nutrients — nitrogen, phosphorus, sulfur, potassium, calcium, and magnesium—and have grown camellia plants with these varied solutions over a period of two years. It has

been shown that the camellia grows well and is tolerant to a wide range of concentrations of these elements.

Nitrogen, which is the mineral nutrient used in greatest amount by all plants, is most critical. The camellia needs to have continuously available to its roots some ten parts per million of nitrogen in the soil solution. Nitrogen concentrations of ten times this level are, however, quite acceptable to the plant.

Nitrogen Deficiency

Nitrogen deficiency is fortunately easy to detect, since, characteristically, yellowing of the lower leaves and restricted growth of the plant result from a deficiency of this element. In these experiments, too, it was shown that for supporting the growth of the camellia, nitrate nitrogen, the usual form found in soil, is as good as or better than ammonium nitrogen or urea nitrogen. It was shown, too, that conditions which favor optimal vegetative growth, which favor rapid growth of stems and leaves, are also the conditions which favor abundant bud set and abundant flower production.

The results of these experiments are, then, reassuring in that they suggest that we need not worry very much about feeding camellia plants with any critically balanced nutrient diet. Provided only that we supply enough minerals to the soil in which the camellias are growng, they will not suffer nutritionally.

Perhaps the most important cultural factors influencing camellia growth — and those which have been least understood in the past — are the twin matters of soil acidity and soil salinity. Soil acidity refers to the hydrogen ion concentration in a soil—to its pH. When hydrogen ions are present in low concentration in a soil, the soil is said to be alkaline.

Most of our ordinary crop plants are not too demanding as to the exact hydrogen ion concentration of the soil in which they grow, and will grow well with hydrogen ion concentrations over a range of at least a hundred thousand fold. Particular plants, as the pines and others, do, however, prefer an acid soil and it has been widely held that the same is true of the camellia. Camellias have been grown in soils of a wide range of hydrogen ion concentrations and it has been found that they grow well even in soils which are ordinarily considered alkaline. The camellia is not truly an acid-loving plant. What is true, however, is that the camellia grows well under damp, well-drained conditions. Soils which are damp and well-drained are ordinarily acid. So the camellia likes damp, well-drained places, but not on account of their acidity. The camellia likes damp well-drained places rather because it is very sensitive to what is called salinity.

Soil Salinity

The concept of salinity has to do with the saltiness of the soil solution. When a soil contains a high concentration of soluble mineral salts, it is said to be saline. A saline soil may be either acid or alkaline. It so happens that saline soils are most frequently also alkaline. This is because a part of the salt which is ordinarily supplied to soil in irrigation water is commonly in the form of calcium or sodium carbonates which react with acid in the soil and neutralize it. But alkalinity in itself does no harm; it is the salt which does the harm to plant growth.

Caltech's Earhart Plant Research Laboratory was fortunate in being able to enlist the assistance of Harold Pearson of the Metropolitan Water District in studying the response of camellia plants to varied conditions of soil salinity. He grew plants at different levels of added salt and with different kinds of salt.

Salt Damage

It was shown that camellia plants grown in the presence of 2700 parts per million of salt suffer from a tip burn of the leaves, a typical salt damage symp-

tom. Plants grown in solutions containing 4300 parts per million of salt produced no growth at all. It was concluded that probably not over 1500 parts per million of salt should be present in the nutrient or soil solution if all salt damage to the camellia is to be avoided.

Irrigation water in southern California contains some 800 parts per million of solids, of which about 600 parts per million contribute to soil salinity. If a plant is watered with such water, then, of course, it is supplied with salt as well as with water. The water is taken up by the plant and evaporated through the leaves, especially during the day. The salts do not evaporate and are left behind in the soil and in the plant.

Suppose that the plant evaporates two-thirds of the water which has been supplied, so that one-third of the original water is left behind. The salts carried in the original water are now concentrated three times as compared with the original water. If the original water had been Metropolitan Water District water, the concentration in the soil solution in our hypothetical experiment would now be 1800 parts per million. This would be a salt solution high enough in concentration to yield some restriction of growth in the camellia and almost high enough to cause damage.

In order to avoid concentration of salts in the soil solution, we must always supply enough water to the camellias, or any other plant, to leach these salts down out of the root zone. This is easily achieved with plants in tubs or pots, where we can always supply enough water to cause visible leaching of water through the container. With plants growing in soil and not in tubs, we must irrigate heavily enough so that the salts accumulated from the previous irrigation are rinsed or leached down below the root zone.

Water Loss

All camellia growers know that, by and large, camellias do better in the shade. This behavior is probably related to the sensitivity of the camellia to the accumulation of salt. When a plant is in the sun, it evaporates more water than it does in the shade. Light does more to increase rate of water loss from a plant than any other single factor, except perhaps the temperature. The more light, the more water loss; the more water loss, the more rapid the depletion of the water after irrigation and the more concentration of salt in the soil solution.

The more light the camellia receives, the more difficult it will be to be sure that the salinity of the soil solution is kept at all times below the level which causes damage to the plant. The conclusion is, then, that the camellia is sensitive to high salt concentrations. It is not so particular about the hydrogen concentration—the acidity of the soil solution. A distinction should be made between these two difficulties. Soil salinity cannot be cured by making the soil more acid through the application of sulfur or other acidifying agents; it can only be cured by leaching. In fact, it might be wise to abolish the term soil-alkalinity. It is a term which confuses the concept of soil salinity with the secondary fact that saline soils are often alkaline.

Climatic Control

In Caltech's phytotron, plants can be grown under conditions which simulate different climatic conditions. Here, for example, plants are grown under conditions of temperature and humidity which simulate summer in Pasadena, and simultaneously under other conditions which simulate winter in Pasadena.

This facility has been applied to the study of the flowering of the camellia. It has turned out that the flowering of the plant is controlled by two principal climatic factors: namely, the night temperature and the relative length of the day and night. Many plants are controlled in their flowering by relative length of day and night and this matter has been much studied.

With the camellia, as with other species, it is in fact the absolute length of the night period which controls flowering response. Only when the night is shorter than a certain critical length does the production of flower buds take place. Superimposed upon this response to length of night is an effect of temperature. It has been shown that camellia plants of several varieties studied produce flower buds only if the days are longer than about 15 hours and the nights correspondingly shorter than about nine hours. Furthermore, nights must be warmer than about 65° for abundant flower bud formation to occur.

Summer Camellias

If a plant is maintained under these summer conditions of relatively warm, short nights, flower buds are formed but they do not open into flowers; they fall off. In order to get flower buds to open and produce flowers, the short warm nights must be supplanted with a regime of long cold nights. The optimum opening of flower buds and production of flowers has been shown to take place when the nights are 60° or colder, and longer than about nine hours.

If, for example, the lab wants to produce camellia flowers in the middle of a Pasadena summer, they will take a camellia plant, say on January 1, and put it in a greenhouse with warm nights and with artificial illumination at night to persuade the plant that the days are long and the nights short. After two months of such treatment flower buds will have been formed and the plant can then be moved to conditions of colder nights. If the plant is also masked with dark cloths from about 6 p.m. to 8 a.m. to maintain a day length of ten hours, it will open normal flowers sometime between May 1 and June 1.

The temperature relations of flower opening in the camellia as determined in the laboratory have an interesting connection with the normal time of flowering for different varieties. Night temperatures during the winter in Pasadena and in southern California generally are sufficiently low to greatly slow down the rate of flower opening. By collection of temperature data from a series of growers in different spots in southern California, it has been found that the earliness of flowering of each camellia is correlated with the temperature of the locality. The warmer the minimum night temperature, the earlier the flowering of each variety. If, for example, the climate should warm up and the winter nights become warmer, correspondingly earlier flowering would result.

Smog Damage

We should not get the impression, however, that all of the science of the camellia is already known. As with the study of any plant or of any living thing, there is a great deal which remains to be discovered with the camellia.

We hear a great deal now about the effect of smog, not only on human beings, but on plants as well. It is interesting to note that the characteristically damaging effects of smog on living organisms was first demonstrated by Professor Haagen-Smit on plants, which are, as a group, remarkably sensitive and which can detect, by showing symptoms of damage, concentrations of smog which are lower than those that irritate humans.

We know that a great many plants are severely damaged by smog. These include particularly such crop plants as sugar beets, endive, barley, tobacco, and others. The question has often arisen of whether smog does damage to camellias and whether this or that obscure symptom might be due to smog.

Camellia plants of different varieties have been exposed to concentrated smog for varying periods of time and then removed to a smog-free greenhouse where they have been allowed to develop further. Fortunately, the camellia is an exceedingly smog-hardy plant and shows, so far as the lab has been able to determine, no characteristic reactions to the pollution of the atmosphere.

Some of the factors which are most important in controlling the vegetative growth of the camellia and in determining flower behavior, have been reviewed.

COVER FLOWERS

Through the courtesy of Schwabacher-Frey Co., of San Francisco, we are able to offer for the first time both front and back covers in color in this issue. CRIMSON ROBE is, in our judgment, one of the best of the new Reticulatas, having a vivid red color tone and form that are unique in that species. It also appears to have a long blooming season in this climate, the writer having had blooms from December to April this year. Both foliage and growth habit are particularly outstanding for a reticulata. ADOLPHE AUDUSSON is, of course, just about universally accepted as one of the top ten japonicas, whether in solid red or this specially-variegated form. Always dependable, almost under any environment, it is the large, showy, individualistic type of bloom that is a "must" in any collection.

WELCOME, DICK BROWN!

Effective with this issue, Richard C. Brown succeeds Dr. John D. Lawson as Associate Editor for the Sacramento area, the latter having recently moved to another part of the state. Our regret at losing Jack Lawson (who, happily, promises to continue as an occasional contributor) is only equaled by our pleasure at having Dick Brown as a replacement, for both these gentlemen long have been recognized as outstanding authorities and enthusiasts in their locality. That we are taking immediate advantage of Dick's talents is evidenced by his article on the after-care of grafts, appearing herein.

JUDGE SOLOMON HOSPITALIZED

It comes as an unpleasant shock to all who know him that the "little colonel," Arthur W. Solomon, President Emeritus of the American Camellia Society, was hospitalized from injuries received March 10th, shortly after returning home from his trip out here to the West Coast. Homeward bound from the camellia show held that day at Charlotte, N. C., his son-in-law's car was struck by another on the streets of Savannah, Georgia, injuring both gentlemen severely. Fortunately, the Judge's daughter, Sara-henri, escaped with minor bruises. From latest letters, both victims of a local drunk driver are getting along well and his injuries, though painful and confining, have not dimmed the Judge's enthusiasm nor his ability as a correspondent. All join in the hope that he has now been able to return to his beloved garden.

1956 ANNUAL MEETING IN SOUTHERN CALIFORNIA

(Continued from Page 12)

who, in turn, introduced his new Board. Then he presented the Illges Medal to Mr. William E. Woodroof for the seedling **Reg Ragland.** This was the first time this medal had ever been awarded to a West Coast seedling and this news was therefore received with great enthusiasm. Mr. Marbury then commented on some of the more outstanding new introductions in the South. The rest of the evening was given over to Spanish music, informality, and relaxation. This was the biggest social affair of the week and was in charge of Mr. Edwards Metcalf.

On Sunday morning private cars of camellia society members were at the hotel to take visitors to any of the private gardens they wished to see. The rest of the day was given to further visits to the show and to three private cocktail parties. Thus ended six days of activity dedicated to camellias; the week had brought together a group of the nation's most enthusiastic and most experienced camellia people and was significant nationally in that it marked an increasing tendency toward inter-sectional visiting, exchange of information, and further integrating camellia interests into a national community which can better advance all phases of camellia knowledge and culture.

JAPONICA ADOLPHE AUDUSSON VARIEGATED